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**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION**

CENTRIPETAL NETWORKS, LLC,)	
)	
Plaintiff,)	No. 2:21-cv-00137-EWH-
)	LRL
vs.)	
)	
PALO ALTO NETWORKS, INC.,)	
)	
Defendant.)	
)	
)	
)	
_____)	

DEFENDANT'S MEMORANDUM IN SUPPORT OF ITS MOTION FOR JUDGMENT
AS A MATTER OF LAW

HIGHLY CONFIDENTIAL — ATTORNEYS' EYES ONLY**I. INTRODUCTION**

Pursuant to Fed. R. Civ. P. 50(a), Defendant Palo Alto Networks, Inc. (“PAN”) moves for judgment as a matter of law (“JMOL”) against Plaintiff Centripetal Networks, LLC (“Centripetal”). Judgment as a matter of law is appropriate “[i]f a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue.” Fed. R. Civ. P. 50(a)(1). Having rested its case, Centripetal’s claims can rise no higher than the presently admitted evidence in the record, which is insufficient to permit a reasonable jury to find in Centripetal’s favor on any of its claims.

II. ARGUMENT¹**A. No Willful Infringement For All Asserted Patents**

Centripetal failed, in its case-in-chief, to present sufficient evidence to support a jury verdict that PAN willfully infringes the Asserted Patents, either pre- or post-suit.

1. No Pre-Suit Willfulness—Lack of Pre-Suit Knowledge

To conclude that any alleged pre-suit infringement was willful, the jury must have a legally sufficient evidentiary basis to find that PAN had pre-suit knowledge of the Asserted Patents. *State Indus., Inc. v. A.O. Smith Corp.*, 751 F.2d 1226, 1236 (Fed. Cir. 1985) (“To willfully infringe a patent, the patent must exist and one must have knowledge of it.”); *Gustafson, Inc. v. Intersys. Indus. Prods., Inc.*, 897 F.2d 508, 511 (Fed. Cir. 1990) (“[A] party cannot be found to have ‘willfully’ infringed a patent of which the party had no knowledge.”). The evidence presented in Centripetal’s case-in-chief fails to provide a sufficient evidentiary basis.

First, the only Centripetal witness with personal knowledge of the 2016-2017 interactions, Steven Rogers, offered no testimony on the issue. Instead, Jonathan Rogers testified concerning a

¹ All emphasis added unless otherwise stated.

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handful of emails and two phone calls between PAN employees and Centripetal personnel during the 2016-2017 timeframe. None of those limited communications had any connection to the Asserted Patents, nor could they given such communications took place *more than two years before* the any Asserted Patent issued. *See* Trial Tr. 356:1-5 (Centripetal “provided material that was given to Palo Alto, and [then] scheduled a meeting that occurred between a member of [Centripetal’s] team and Palo Alto”); *id.* 353:22-354:2 (“Centripetal met with Palo Alto”); *id.* 357:19-21 (material purportedly given to PAN was “[a] teaser document and a technical presentation,” neither of which was introduced into evidence); *id.* 357:25-360:20; 1212:14-16 (testimony as to an email exchange between Centripetal and PAN during 2017 (PX-944) in which the parties discussed a PAN threat intelligence feed product that is not accused in this case, called MineMeld).² No evidence suggests that any communication or materials exchanged related to or referenced any Centripetal patent.³ Thus, not only does this evidence have no connection to the Asserted Patents—or any Centripetal patent, for that matter—but the fact that these interactions occurred before the issuance of any Asserted Patent renders them legally insufficient to support a finding that PAN had pre-suit knowledge of any Asserted Patent. *See, e.g., Adidas America, Inc., v. Skechers USA, Inc.*, No. 3:16-CV-1400, 2017 WL 2543811, *4 (D. Or. June 12, 2017) (alleged infringer could not, “[a]s a matter of law” acquire knowledge of the patents before their issuance”).

Second, Jonathan Rogers testified Centripetal listed its issued patents on its website and that there is evidence users with IP addresses associated with PAN visited Centripetal’s website

² *See also* Trial Tr. 381:20-388:17 (Mr. Rogers conceding that the parties 2016-2017 interactions were limited to two phone calls and some emails, the substance of which Mr. Rogers had no personal knowledge).

³ J. Rogers also testified that the parties entered into a non-disclosure agreement (NDA) in 2016. Trial Tr. 354:3-355:7; *see also* PX-122. But Centripetal presented no evidence that Centripetal disclosed information concerning patents or patent application to PAN under the NDA.

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numerous times. Trial Tr. 340:13-15 (Centripetal “mark[s]” its website with its patent numbers); *id.* 371:6-21 (“various individuals from Palo Alto have come to our website and consumed data sheets and other content”). Notably, however, Centripetal presented *no evidence* that any PAN employee visited the portion of Centripetal’s website listing its patents.⁴ In addition, the first Asserted Patent did not issue until January 2020, and Centripetal provided no evidence that the Asserted Patents were listed on Centripetal’s website before the March 2021 Complaint. Trial Tr. 341:2-20 (testifying merely that the website is updated “after . . . patents issue”). Thus, this evidence is insufficient to support a finding PAN had pre-suit knowledge of any Asserted Patent.

Third, the testimony and exhibit offered by Centripetal concerning product marking fares no better. Although Jonathan Rogers testified that it is “Centripetal’s practice” “to update and increment” the labels on its products “after . . . patents issue,” Mr. Rogers was unable to provide any specific timeframe in which the label on Centripetal’s products was updated to include the Asserted Patents. Trial Tr. 339:18-341:20, 398:23-401:15. The proffered photo (PX-787) is not dated. Further, Centripetal presented no evidence to suggest that PAN ever saw or had access to a Centripetal product that was marked with the Asserted Patents. And constructive notice via marking is not sufficient for purposes of willfulness. *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1446 (Fed. Cir. 1998) (“the issue of willfulness turns on the actual knowledge of the infringer, and is unrelated to the adequacy of constructive notice by the patentee”).⁵ Accordingly, PAN is entitled to judgment as a matter of law of no pre-suit willful infringement.

2. No Pre- or Post-Suit Willfulness—Lack of Intent

To conclude that any post-suit infringement by PAN was willful, the jury must have a

⁴ And as J. Rogers further acknowledged, getting to the patent listing on Centripetal’s website is not intuitive or straightforward. Trial Tr. 402:2-15.

⁵ *Arctic Cat Inc. v. Bombardier Recreational Prod. Inc.*, 950 F.3d 860, 864 (Fed. Cir. 2020) (distinguishing “constructive notice”—i.e., via marking—from “actual notice”)

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legally sufficient evidentiary basis to find that PAN acted with a specific intent to infringe. *See SRI Int'l, Inc. v. Cisco Sys., Inc.*, 14 F.4th 1323, 1330 (Fed. Cir. 2021) (willfulness requires evidence of “deliberate or intentional infringement”). No such basis exists here, as Centripetal presented no evidence or testimony in its case-in-chief suggesting that PAN acted with a specific intent to infringe, either pre- or post-suit. Rather, the intent element of Centripetal’s willfulness claim appears to rest on the fact that PAN did not alter the Accused Products after this suit was filed. But “a party may continue to manufacture and present what in good faith it believes to be a legitimate defense without risk of being found on that basis alone a willful infringer.” *Gustafson, Inc. v. Intersystems Indus. Prods., Inc.*, 897 F.2d 508, 511 (Fed. Cir. 1990); *see also TecSec, Inc. v. Adobe Inc.*, No. 1:10-CV-115, 2019 WL 1233882, at *2 (E.D. Va. Mar. 14, 2019) (“continued sale of the infringing product without removing its infringing capability is merely typical infringement behavior that is not a proper basis for enhanced damages.”). Accordingly, PAN is entitled to judgment as a matter of law of no willful infringement.

B. No Direct Infringement For The '903, '573, and '797 Patents

To conclude that PAN directly infringes any Asserted Claim of the '903, '573, or '797 Patents, the jury must have a legally sufficient evidentiary basis to find that the Accused Products satisfy “every limitation of a claim, either literally or under the doctrine of equivalents.” *See Fed. R. Civ. P. 50(a)(1); MicroStrategy Inc. v. Bus. Objects, S.A.*, 429 F.3d 1344, 1352 (Fed. Cir. 2005). There is no such basis here, either literally or under the doctrine of equivalents.

1. No Literal Infringement.

Centripetal failed to present sufficient evidence that either ACE or Cortex XDR perform the *specific claimed* correlation and based on the *specific claimed* analysis. Evidence of *some sort* of correlation based on *some unspecified* analysis does not satisfy the claims. Each asserted independent claim of the '903, '573, and '797 Patents includes a “correlate” or “correlating”

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limitation that requires correlating packets received by a “network device” from a first host on a first network, and packets transmitted by the same “network device” to a second host on a second network. They further require doing so based on an analysis of two specific inputs: (1) “a first plurality of log entries” corresponding to the received packets and (2) “a second plurality of log entries” corresponding to transmitted packets. JX-3, JX-4, JX-5.

Centripetal sought to elicit evidence showing only that: (1) the NGFW generates log records containing fields that Centripetal asserts meet the first and second plurality of log entries, (2) ACE or Cortex XDR receive these logs, and (3) ACE or Cortex XDR perform *some unspecified* “correlation” on some *unspecified* logs to reach some *unspecified* conclusion. Trial Tr. 571:4- 581:7; 587:9-599:9; 613:10-634:15; 644:12-646:7.⁶ This is not proof that either the specific claimed analysis occurred or that such analysis is then used to correlate packets received with packets transmitted as claimed. As with the '380 Patent, Centripetal has not offered proof, but “instead an invitation for unwarranted speculation.” See ECF No. 742 at 6. “Centripetal’s evidence here is plainly insufficient” to raise a legally sufficient basis for a reasonable jury to find infringement. *See id.*

Further, not only does Centripetal’s theory require unwarranted speculation, the evidence shows any such speculation is contrary to common sense that PAN would perform the claimed correlation and claimed analysis. What Dr. Cole accused as the first and second plurality of log

⁶ Centripetal asserts two sets of infringement theories: one in which ACE functionality in certain NGFWs allegedly performs the claimed correlation and one in which Cortex XDR allegedly performs the claimed correlation. *See, e.g.,* Trial Tr. 133:19-24; 525:14-20; 602:25-603:1. In both cases, Centripetal asserts that certain fields—“pre-NAT” address fields and “Packets Received”—contained in logs generated by NGFWs meet the “first plurality of log entries” and the certain other fields contained in logs generated by NGFWs—“post-NAT” address fields and “Packets Sent”—contained in logs generated by NGFWs meet the “second plurality of log entries.” Trial Tr. 566:14-567:3; 610:25-614:19.

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entries are fields that already exist side by side in a single traffic log record, as is shown in PX-182 at pp 474-477. Trial Tr. 641:18-643:9. Accepting Centripetal's proof that ACE and Cortex XDR each receive these logs as an input, Centripetal provided no evidence that ACE or Cortex then choose to perform analysis—and there is no need to do any analysis at all to correlate or match up what already arrived grouped together in a single log record. Likewise, each asserted independent claim concludes with “remedial” steps that require identifying information associated with “*the* first host” that transmitted the packet received by the network device. JX-3, JX-4, JX-5. But an NGFW already has that information as the device that received the packet in the first place and logged it—there is no need for any device with access to the NGFW's logs to perform any analysis to learn a known fact relating to the first host. Likewise, Centripetal cannot show that the correlation is “the impetus” for the remedial steps of identifying the first host (as required by the Court's constructions) because the NGFW already identified that host when it received the packet before any logs were generated. In sum, the Court excluded Dr. Cole from opining that the NGFW's generation of the session table itself could be the claimed correlation. *See* ECF No. 691 at 14. The presence of all the information that the claim requires to be matched up in that session table means that PAN does not do what the claims require.

2. *No Infringement Under the Doctrine of Equivalents*

Centripetal presented no evidence whatsoever concerning infringement under the doctrine of equivalents for any Asserted Claim of the '903, '573, or '797 Patents. Accordingly, PAN is entitled to judgment of no infringement for those patents.

C. *No Direct Infringement For The '437 Patent*

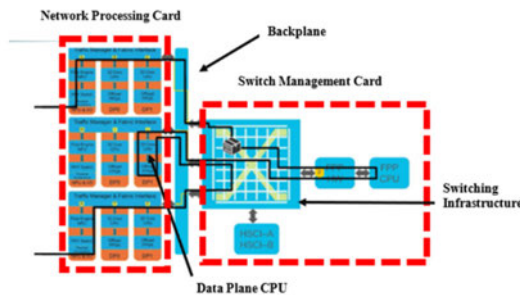
As stated above, to conclude that PAN directly infringes, the jury must have a legally sufficient evidentiary basis to find that the Accused Products satisfy every limitation of a claim, either literally or under the doctrine of equivalents. There is no such basis to find infringement of

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claim 8 of the '437 Patent.

1. No Literal Infringement

“Modify a Switching Matrix.” Relevant to this step, Claim 8 requires: (a) a “packet security gateway” that makes a “determination” that a received packet matches one of the provisioned rules, and then, (b) “responsive to the determination,” “modify[ing] a switching matrix of a local area network (LAN)” “such that the LAN switch is configured to drop” packets. JX-2. With reference to DX-94, Dr. Mitzenmacher testified it is “Data Plane CPU” labeled “J” in the “Network Processing Card” [left] “where the policy is enforced,” (i.e., the function of the “packet security gateway”). Trial. Tr. at 953:19-21. He mapped the claimed “LAN switch” and “switching matrix” therein to the “Switch Management Card” and “Switching Infrastructure” therein. *Id.* 950:22-951:15.



MM-DM01.38 (further annotations of DX-94 on top of demonstrative's annotations).

Having established this mapping, Dr. Mitzenmacher *failed to offer a single word of testimony* about the relevant question of how, *responsive to the determination*, the Switching Infrastructure is modified such that the Switch Management card is configured to drop packets. *See, e.g.*, Trial Tr. 953:24-954:3. Instead, Dr. Mitzenmacher testified exclusively on direct that the Switch Management Card routing packets upon receipt to the Network Processing Cards for *subsequent* policy enforcement. *Id.* 949:16-950:14. This functionality has no relevance to the

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claim because it happens *before* the Network Processing Card determines any rule matches and, thus, cannot be *responsive to* that action.

On cross-examination and redirect, Dr. Mitzenmacher shifted to a new theory having nothing to do with the “Switching Infrastructure” in the “Switch Management Card” that he had mapped; instead, he argued that the Data Plane CPU simply allowing a packet to sit in a buffer and be overwritten “is the modification of the switching matrix in the context you’re saying. Instead of actually switching the packet, you’re allowing the packet to be overwritten. That’s *a modification*.” *Id.* 1003:22-1004:9, 1016:9-1017:5. But the claim is not met by any “modification” or any method of dropping. The Data Plane CPU is not even on the same physical device as the mapped LAN switch and switching matrix.⁷ There is no evidence that the Data Plane CPU uses the “Switch Management Card” or its “Switching Infrastructure” in any way to *drop packets*. Rather, as Dr. Mitzenmacher testified, the “switching infrastructure” simply “determin[es] where things go in and out.” Trial Tr. 951:11-15.

Separately, while Dr. Mitzenmacher alleged infringement based on Panorama in combination with eleven different NGFW product families (Trial Tr. 874:19-875:4; MM-DM01.10), for the “modify a switching matrix” element, he relied on a *hardware* configuration and addressed that hardware only for the PA 7000 Series: “This is a document describing the PA 7000 series.” Trial Tr. 942:20-22.⁸ There is no evidence or testimony regarding any corresponding *hardware* in any of the other ten families. Further, data sheets of record demonstrate obvious physical differences across families confirming that PA 7000 Series evidence cannot apply

⁷ Any attempt to map the Data Plane CPU to the switching matrix fails because the Data Plane CPU is on the Network Processing card, not “contained within a LAN switch” as required by the Parties’ agreed-upon construction. ECF 419-1.

⁸ For other elements Dr. Mitzenmacher pointed to PAN-OS *software* that he opined is common across all firewalls (Trial Tr. 880:5-12), but his switching matrix analysis is specific to hardware.

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universally. *See, e.g.*, PX-196; PX-209.

“One or More Rules.” In his initial testimony, Dr. Mitzenmacher mapped the claim element “provision a packet security gateway ... with one or more packet filtering rules” to “Panorama” “push[ing]” a “security policy” “to the firewalls.” Trial Tr. 921:14-21. Further, Dr. Mitzenmacher relied upon DX-1, “the Palo Alto document describing packet flow sequences called Day in the Life of a Packet.” *Id.* 939:21-940:18. DX-1 demonstrates that, when in the accused Layer 2 mode (*see id.* 942:13-944:11), the mapped “security policy” is not “to be applied to all network traffic traversing the boundary” as Claim 8 requires.

Dr. Mitzenmacher acknowledged the presence of two processing steps—“Ingress process error?” and “FW inspection applicable”—that occur prior to application of the mapped “security policy.” Trial Tr. 979:2-8; DX-1. As these two processing steps remove packets from the processing queue before applying the mapped “security policy,” that security policy cannot “be applied to all network traffic traversing the boundary.”

Dr. Mitzenmacher acknowledged on cross-examination that that the “FW inspection applicable” did, indeed, illustrate packets bypassing application of the provisioned rules. Trial Tr. 988:1-15. While initially arguing (and mistakenly asserting that it was PAN’s burden to prove noninfringement) that “you haven’t shown these are any packets that would cross a network boundary” (*id.* 988:11-15), Dr. Mitzenmacher later conceded, with reference to the categories DX-1 lists as “forward only” for Layer 2 mode that “there can be non-IP packets that cross boundaries” (*id.* 1015:19-1016:1). He qualified this concession with “but then they are subject to rules,” but identified no such rules, and DX-1, which he adopted, shows otherwise.⁹

⁹ Centripetal also cannot shift to declaring the “image process error” step as somehow being the “one or more rules” as it has never mapped all overlapping requirements to that “rule.”

HIGHLY CONFIDENTIAL — ATTORNEYS' EYES ONLY**2. *No Infringement Under the Doctrine of Equivalents***

Dr. Mitzenmacher's testimony on the "the provision and the rules elements" under the doctrine of equivalents lasted less than three minutes and failed to even state what feature was even being addressed. Trial Tr. 956:12-958:15. Accordingly, PAN is entitled to JMOL of no infringement for the '437 Patent.

D. No Induced Infringement For All Asserted Patents.

To conclude PAN induces infringement of any Asserted Claim, the jury must have a legally sufficient evidentiary basis to find both (1) that a PAN customer uses Accused Products to directly infringe an Asserted Claim, and (2) that PAN had a specific intent to encourage its customers to directly infringe that claim. *Kinetic Concepts, Inc. v. Blue Sky Med. Grp., Inc.*, 554 F.3d 1010, 1024 (Fed. Cir. 2009) ("[t]o prove induced infringement, the plaintiff must prove both direct infringement and that the defendant possessed specific intent to encourage another's infringement").¹⁰ The evidence presented by Centripetal in its case-in-chief provides no such basis.

"To satisfy the direct infringement requirement, the patentee must either point to specific instances of direct infringement or show that the accused device necessarily infringes the patent in suit." *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1364 (Fed. Cir. 2012). For the reasons explained above in Sections III.B and III.C, there is no legally sufficient evidentiary basis to find that use of any Accused Products necessarily infringes any Asserted Claim.

Second, there is no legally sufficient evidentiary basis for a jury to find that any single customer uses the Accused Products in the manner required by the Asserted Claims. With respect to the '573 and '797 Patents, Dr. Cole testified merely that PAN provides product documentation to its customers that allegedly "instruct its customers . . . to perform the steps of claims 1 of the

¹⁰ See also *Nalco Co. v. Chem-Mod, LLC*, 883 F.3d 1337, 1355 (Fed. Cir. 2018) ("It is axiomatic that '[t]here can be no inducement . . . without an underlying act of direct infringement.'").

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'797 Patent and the '573 Patent,” and that “Palo Alto customers infringe by performing the methods in the United States.” Trial Tr. 660:15-661:9. Centripetal did not introduce any exhibits that would support a finding that any single customer uses any Accused Product, let alone a combination of products, in an infringing manner. Dr. Cole’s conclusory assertions that unnamed customers use the Accused Products in an infringing manner is legally insufficient to support a finding that PAN indirectly infringes claim 1 of the '573 Patent or claim 1 of the '797 Patent. *See, e.g., MobileMedia Ideas LLC v. Apple Inc.*, 780 F.3d 1159, 1172 (Fed. Cir. 2015). As to the remaining Asserted Claims, neither Dr. Cole nor Dr. Mitzenmacher provided *any* testimony concerning direct infringement of those claims by any PAN customer.

Third, with respect to the intent requirement, Centripetal failed to present evidence in its case-in-chief from which a reasonable jury could find that PAN “possessed specific intent to encourage another’s infringement.” *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006). It is not enough to have “knowingly induced the acts that constitute direct infringement;” rather, it must be shown that PAN “knew or should have known its actions would constitute actual infringements.” *Id.*; *see also Water Techs. Corp. v. Calco, Ltd.*, 850 F.2d 660, 668 (Fed. Cir. 1988) (Section 271(b) requires inducer to have “actively and knowingly aid[ed] and abett[ed] another’s direct infringement.”). Here, the evidence presented by Centripetal is insufficient to support a finding that PAN has an affirmative intent to cause direct infringement. To the contrary, Dr. Cole testified merely that it is his “understanding” that PAN knew of the '573 and '797 Patents “because the lawsuit was filed.” Trial Tr. 660:21-25. But, while the intent requirement “necessarily *includes* the requirement that [PAN] knew of the patent[s],” that is not alone is sufficient to support a finding that PAN possessed the requisite intent. *DSU Med.*, 471 F.3d at 1304 (emphasis added). Given these evidentiary failings, PAN is entitled to judgment as a matter of law that PAN does not induce

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infringement of any Asserted Claim.

E. No Infringement of Asserted Method Claims Based On Foreign Sales

Centripetal contends it is entitled to damages for products sold to customers outside the United States based on alleged infringement of claim 1 of the '573 Patent and claim 1 of the '797 Patent. But Centripetal failed to present evidence in its case-in-chief from which a reasonable jury could find that PAN directly or indirectly infringes those claims based on products sold to customers outside the U.S. Claim 1 of the '573 Patent and claim 1 of the '797 Patent are method claims, which can only be directly infringed by “use” of the claimed method. *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1319 (Fed. Cir. 2005) (“infringement of method claims under section 271(a) [is] limited to use”). Sale of a product to perform the claimed method “is not a direct infringement.” *Joy Techs. Inc. v. Flakt, Inc.*, 6 F.3d 770, 773 (Fed. Cir. 1993) (“the sale of equipment to perform a process is not a direct infringement of the process”); *Lucent Technologies, Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009) (“sales of [defendant’s] software alone cannot infringe [method claims];” rather, “[i]nfringement occurs only when someone performs the method using a computer running the necessary software”). Thus, PAN’s sales of Accused Products cannot, as a matter of law, directly infringe the asserted method claims.

To conclude PAN induces infringement,¹¹ there must be sufficient evidence that a PAN customer uses Accused Products to directly infringe. Because claim 1 of the '573 Patent and claim 1 of the '797 Patent are method claims, they can only be infringed by “use” of the claimed method “within the United States.” 35 U.S.C. § 271(a) (tying infringement to acts “within the United States”); *NTP*, 418 F.3d at 1319. With respect to foreign sales, Centripetal presented *no evidence* that any such customer performs each step of the claimed method “*within the United States.*” *NTP*,

¹¹ Centripetal’s indirect infringement claims are limited to induced infringement. See ECF No. 766 (Centripetal’s notice that it did not intend to pursue contributory infringement at trial).

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418 F.3d at 1318 (“a process cannot be used ‘within’ the United States as required by section 271(a) unless each of the steps is performed within this country”); *W.L. Gore & Assocs. v. Medtronic, Inc.*, 874 F. Supp. 2d 526, 543–44 (E.D. Va. 2012) (infringement under the “use” prong of § 271(a) “is precluded” unless “each step of the patented process” is performed “within the United States”). Thus, there is no sufficient evidentiary basis to find PAN indirectly infringes claim 1 of the ’573 Patent or claim 1 of the ’797 Patent based on sales to customers outside the U.S.

Pursuant to Centripetal’s lack of evidence and governing law, PAN is entitled to judgment as a matter of law that (a) PAN does not infringe claim 1 of the ’573 Patent and claim 1 of the ’797 patent based on foreign sales, and therefore (b) Centripetal cannot recover any damages for alleged infringement of those claims based on such sales.

F. No Infringement of Asserted Apparatus Claims Under Centripetal’s Combination-Based Infringement Theories

The manufacture or sale of components that could be combined into a patented invention is not direct infringement. *See Deepsouth*, 406 U.S. at 523-524, 528 (selling parts to customers who would assemble the complete machine did not directly infringe);¹² *see also Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 344 (1961). For Centripetal’s combination-based infringement, there is no sufficient evidentiary basis to find that PAN made, used, offered to sell, or sold a product embodying any complete patented invention. On the contrary, the various PAN products are undisputedly distinct and sold separately. Accordingly, direct infringement occurs, if at all, when a customer purchased separate PAN products and combined them together into a single system. Centripetal offered no evidence as to any customer making such a combination (either inside or outside the U.S.). Even if *Deepsouth* permitted a finding of direct infringement

¹² “[A]s to claims brought under § 271(a), *Deepsouth* remains good law: one may not be held liable under § 271(a) for ‘making’ or ‘selling’ less than a complete invention.” *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1252 n.2 (Fed. Cir. 2000).

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for sales of components that would infringe if combined (it does not), the royalty base under such a theory would at most be sales of particular infringing combinations. Because infringement damages must be “correlated, in some respect, to the extent” that customers use the patented invention, and the record was “conspicuously devoid of data on that issue, Centripetal has not proven any damages at all. *Lucent*, 580 F.3d at 1334.¹³

G. No Infringement With Respect To Foreign Sales Of Prisma Access, Cortex XDR, Cortex XSOAR, and Cortex XSIAM

Centripetal contends it is entitled to damages for alleged infringement based on sales of Prisma Access, Cortex XDR, Cortex XSOAR, and Cortex XSIAM (“the Prisma/Cortex products”) to customers outside the U.S, which Mr. Malackowski describes as his worldwide damages model. But Centripetal failed to present evidence in its case-in-chief from which a reasonable jury could find that PAN directly or indirectly infringes any Asserted Claim based on sales of such products to foreign customers. This is precisely why Mr. Malackowski presented an alternative damages model. JM-DM01.49; Trial Tr. 1141:12-24; 1219:8-1221:20.

To conclude PAN infringes based on sales of the Prisma/Cortex products to foreign customers, the jury must have a legally sufficient evidentiary basis to find that such products are made, used, or sold “within the United States.”¹⁴ See 35 U.S.C. § 271(a) (tying infringement to conduct “within the United States”). For Prisma/Cortex products sold to foreign customers, there is no such basis. Centripetal presented no evidence in its case-in-chief as to where the Prisma/Cortex products are made; rather, Mr. Malackowski testified that he *assumed* Cortex XDR

¹³ See also *Cardiac Pacemakers, Inc. v. St. Jude Med., Inc.*, 576 F.3d 1348, 1359 (Fed. Cir. 2009) (“Cardiac can only receive infringement damages on those devices that actually performed the patented method during the relevant infringement period.”).

¹⁴ Centripetal has the burden of proving infringement, including conduct “within the United States.” See 35 U.S.C. § 271(a), (c); *Morton Int’l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1468 (Fed. Cir. 1993).

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and Cortex XSIAM are developed and programmed exclusively in Israel, and Cortex XSOAR and Prisma Access are made-in-part *outside* the United States. Trial Tr. 1219:20-1220:8, 1220:25-1221:10.¹⁵ And for sales of such products to customers *outside* the U.S., Centripetal offered no evidence that the products are delivered or used in the U.S. Instead, Mr. Malackowski testified only that he included foreign sales for these products at the request of counsel. *See, e.g.*, Trial Tr. 1220:12-19. Ms. French's testimony provided no support for the foreign sales claims as to these products. *See* Trial Tr. 1058:12-13 (referencing Vonnie French deposition testimony previously submitted to the Court).

As the Federal Circuit held in *Carnegie Mellon University v. Marvell Technology Group*, products made and delivered abroad cannot be found to infringe unless those products “can fairly be said to have been sold here.” 807 F.3d 1283, 1305-1306 (Fed. Cir. 2015); *see also Power Integrations*, 711 F.3d at 1371-72 (rejecting damages claim based on the defendant's “entirely extraterritorial production, use, or sale” of accused products). Centripetal presented no evidence in its case-in-chief that supports a finding that, where PAN sells the Prisma/Cortex products to foreign customers, the “sale” occurred in the U.S. Accordingly, PAN is entitled to judgment as a matter of law that PAN does not infringe any Asserted Claim based on sales of Prisma Access, Cortex XDR, Cortex XSOAR, or Cortex XSIAM to customers outside the U.S.

H. No Entitlement to Damages

There is no legally sufficient evidentiary basis for a reasonable jury to find Centripetal is entitled to any reasonable royalty damages from alleged infringement of any Asserted Claim.

¹⁵ Centripetal presented no evidence that the material development for Cortex XSOAR or Prisma Access occurs “within the United States” such that a jury could find that the products are made in the U.S. *See, e.g., Deepsouth*, 406 U.S. at 527 (infringement requires making of “the assembled or functioning whole, not . . . the separate parts”).

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1. *There is no legally sufficient evidentiary basis to support a reasonable royalty award on foreign sales of Cortex XDR, Cortex XSIAM, Cortex XSOAR or Prisma Access*

As discussed above, Centripetal failed to present evidence in its case-in-chief from which a reasonable jury could find that PAN directly or indirectly infringes any Asserted Claim based on sales of Prisma Access and the accused Cortex products to customers outside the United States. Mr. Malackowski testified he calculated two royalty models: one in which worldwide sales were included for all Accused Products; and an alternative royalty base excluding sales of Prisma Access and the accused Cortex products to foreign customers. Trial Tr. 1139:3-16; 1220:16-22; 1221:16-20. As discussed above in Section III.F, Centripetal failed to present evidence sufficient for a reasonable jury to award the proffered worldwide royalty base, and they must be limited to Mr. Malackowski's alternative model. JM-DM01.49; Trial Tr. 1141:12-24; 1219:8-1221:20.

2. *There is no legally sufficient evidentiary basis to find the Keysight agreement comparable to the hypothetically negotiated agreement between Centripetal and PAN.*

Centripetal's damages model rests on a single agreement—Centripetal's 2018 settlement agreement with Keysight Technologies, Inc. ("Keysight Settlement") resolving infringement claims for patents not asserted here. Trial Tr. 1167:18-21 (agreeing Keysight Settlement is the only agreement cited to support Centripetal's damages theory). Centripetal failed to present evidence in its case-in-chief from which a reasonable jury could find that the Keysight Settlement is sufficiently comparable for wholesale adoption of the Keysight royalty rate.

To support a reasonable royalty, prior licenses "need to be 'sufficiently comparable' for evidentiary purposes and any differences must be soundly accounted for." *MLC Intellectual Prop., LLC v. Micron Tech., Inc.*, 10 F.4th 1358, 1375 (Fed. Cir. 2021). "[A] loose or vague comparability between different technologies or licenses does not suffice." *LaserDynamics, Inc. v. Quanta Comput., Inc.*, 694 F.3d 51, 79 (Fed. Cir. 2012). Courts have long held that licenses executed under

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threat of litigation are generally unreliable measures of a reasonable royalty. *See, e.g., Cornely v. Marckwald*, 131 U.S. 159, 161 (1889). Accordingly, the Federal Circuit generally has permitted consideration of licenses arising out of litigation only where they are the most reliable evidence of a reasonable royalty. *See ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 873 (Fed. Cir. 2010).

The evidence presented at trial is insufficient to support that finding here. To the contrary, Mr. Malackowski testified that the Keysight Settlement was executed under economic circumstances vastly different from the hypothetical negotiation—it was negotiated in the middle of trial and settled Centripetal’s claims against Keysight involving several Centripetal patents, none of which is asserted here. Trial Tr. 1168:5-1169:17; 1190:9-15. By contrast, the parties in the hypothetical negotiation are presumed to be willing licensees, unencumbered by the threat of litigation. *See, e.g., Lucent Techs.*, 580 F.3d at 1324-25 (explaining “willing licensor-willing licensee” approach of the hypothetical negotiation); *see also* Trial Tr. 1160:6-10; 1200:10-15 (testifying that the hypothetical negotiation would involve a willing licensee and licensor). Mr. Malackowski likewise admitted the Keysight Settlement contained fundamentally different terms than the hypothetical Centripetal-PAN license, including that the Keysight Settlement: was a portfolio license that conveyed rights to the entirety of Centripetal’s then-existing patent portfolio and future patents issued during the term of the license that included [REDACTED] [REDACTED] by the time the license expired (Trial Tr. 1173:3-1181:23); included [REDACTED] [REDACTED] (Trial Tr. 1171:11-1172:13); and [REDACTED] (Trial Tr. 1165:11-13). In contrast, the hypothetical license between Centripetal and PAN in this case would be limited to the Asserted Patents, would include no assurance that Centripetal would not later assert infringement of other Centripetal patents, and would span the life of the Asserted Patents. Trial Tr. 1198:2-1201:24; *see Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 974 (Fed. Cir.

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2022) (expert's reliance on discussions of one of five asserted patents and "silence on these equally situated patents is troubling and makes his opinion unreliable"); *see also Rex Med. v. Intuitive Surgical, Inc.*, No. 19-cv-0005, 2023 WL 6142254, at *10 (D. Del. Sept. 20, 2023) (finding plaintiff "failed to establish that a license is comparable to the hypothetical negotiation" because it could not identify the value attributable to non-asserted patents). Mr. Malackowski likewise acknowledged that the Keysight Settlement included [REDACTED], and he further acknowledged that the total Keysight royalty payment was only [REDACTED]. Trial Tr. 1183:9-1184:17. Centripetal failed to present evidence soundly accounting for the fundamental differences between the Keysight Settlement and the hypothetical license, especially where Mr. Malackowski's only purported apportionment is the built-in apportionment in the Keysight Settlement, and therefore cannot satisfy its burden of proving that the Keysight Settlement is sufficiently comparable to support a reasonable royalty in this case. *See MLC*, 10 F.4th at 1375. And Centripetal's witnesses' refusal to acknowledge the fundamental differences in Keysight's and PAN's products is a fatal flaw, not simply an issue for cross examination at trial. *See* Trial Tr. 744:4-751:4.

Having presented its entire damages evidence, Centripetal has failed carry its burden of proving it is entitled to its purported reasonable royalty. *See ResQnet.com*, 594 F.3d at 873 ("A reasonable royalty based on such speculative evidence violates the statutory requirement that damages under § 284 be 'adequate to compensate for the infringement.'").

3. *There is no legally sufficient evidentiary basis from which to determine a reasonable royalty that reflects the value attributable to the patented inventions alone*

Centripetal separately failed to present evidence that properly apportioned the incremental value of the patented inventions over the non-accused components of the Accused Products, as the

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law requires. “A patentee is only entitled to a reasonable royalty attributable to the infringing features.” *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 904 F.3d 965, 977 (Fed. Cir. 2018). “[W]here an infringing product is a multi-component product with patented and unpatented components, apportionment is required.” *Mentor Graphics Corp. v. EVE-USA, Inc.*, 870 F.3d 1298, 1299 (Fed. Cir. 2017). The apportionment “must be reliable and tangible, and not conjectural or speculative....” *Lucent Techs.*, 580 F.3d at 1337; *Limelight Networks, Inc. v. XO Communications, LLC*, No. 3:15-cv-720, 2018 WL 678245, *4 (E.D. Va. Feb. 2, 2018). In failing to apportion for either differences in patents or products as compared to the Keysight Settlement, Mr. Malackowski’s built-in apportionment theory fails as a matter of law. *Omega Patents, LLC v. CalAmp Corp.*, 13 F.4th 1361, 1379-81 (Fed. Cir. 2021) (finding unreliable testimony that the same royalty applied “regardless of what patents were included” for failure to account for the technical and economic differences between the licenses); *Exmark Mfg. Co. v. Briggs & Stratton Power Prods. Grp., LLC*, 879 F.3d 1332, 1349-51 (Fed. Cir. 2018) (granting motion for new trial based on expert’s failure to sufficiently tie the value of the accused product to the selected royalty rate).

Despite conceding that the Accused Products include “hundreds of features,” many of which are non-patented components, Trial Tr. 751:2-4, 1132:3-8, Mr. Malackowski failed to properly apportion out the value of those components to isolate the incremental value of the claimed invention. Mr. Malackowski instead testified that apportionment was not necessary because it was “built-in” to the Keysight Settlement. Trial Tr. 1233:10-19. But merely identifying a “comparable” agreement is not enough. Indeed, the Federal Circuit has found built-in apportionment to be appropriate only in limited circumstances involving complete identity of parties, patents, and accused technology, or a reliable analysis of the differences between the licensed technology and the accused technology. *See MLC*, 10 F.4th 1375; *see also Biedermann*

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Techs. GmbH & Co. KG v. K2M, Inc., No. 2:18-cv-585, 2021 WL 6034269, at *16-19 (E.D. Va. Dec. 10, 2021). That is plainly not the case here. The evidence presented at trial establishes that the Keysight Settlement involved different parties, different patents, and different accused technologies. Trial Tr. 1196:11-13; 1190:9-15; 748:21-750:8. And Centripetal presented no reliable analysis of the differences between the licensed technology and accused technology. Mr. Malackowski instead testified that the Keysight royalty rate was already apportioned because it had been “reduced [] by 40 percent to account for the old technologies.” Trial Tr. 1129:17-20. Centripetal failed to offer sufficient evidence to establish that this 40 percent apportionment figure sufficiently accounts for the non-patented technologies in PAN’s Accused Products. To the contrary, both Mr. Malackowski and Dr. Cole concede that PAN’s Accused Products have hundreds of features, a majority of which are not accused, Trial Tr. 751:2-4, 1132:3-8, and the patents have different scope for which Centripetal has failed to account. Dr. Cole, on whose testimony Mr. Malackowski relied for the comparison between the accused and unaccused features in both the Keysight and PAN’s Accused Products, conceded that he did not perform any technical analysis of the relative proportion of accused to unaccused features in either the Keysight products or PAN’s products. Trial Tr. 750:23-751:21; 1129:2-10; 1190:16-22.

Given this missing foundation, there is no basis on which the jury could find that the reasonable royalty may be applied to the unapportioned invoiced billings for the Accused Products. As a result, Mr. Malackowski’s damages figures should be struck, and judgment entered as a matter of law on damages. *Power Integrations, Inc.*, 904 F.3d at 978 (vacating denial of motion for a new trial because patentee had not shown that patented feature was the “sole driver of customer demand or substantially creates the value of the component parts” and had otherwise failed to apportion the value of the patented feature to the overall accused product).

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on January 27, 2024, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system, which will automatically send notification of electronic filing to all counsel of record.

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